

1 1. A substantially pure polypeptide comprising an  
2 amino acid sequence at least 85% identical to any one of  
3 SEQ ID NOs:1, 2, 82, 83, or 84, wherein the polypeptide  
4 contains a PDZ domain sequence.

1 2. The polypeptide of claim 1, wherein the amino acid  
2 sequence is at least 90% identical to any one of SEQ ID  
3 NOs: 1, 2, 82, 83, or 84.

1 3. A substantially pure polypeptide comprising the  
2 sequence of any one of SEQ ID NOs: 1, 2, 82, 83, or 84.

1 4. A substantially pure polypeptide comprising the  
2 amino acid sequence of any one of SEQ ID NOs: 1, 2, 82, 83,  
3 or 84, with up to 50 conservative amino acid substitutions,  
4 wherein the polypeptide contains a PDZ domain sequence.

1 5. A substantially pure polypeptide encoded by a  
2 nucleic acid that hybridizes under high stringency  
3 conditions to a probe the sequence of which consists of any  
4 one of SEQ ID NOs:3, 59, 75, 78, 79, 80, 81, 85, 86, or 87,  
5 wherein the polypeptide contains a PDZ domain sequence.

1 6. An isolated nucleic acid encoding the polypeptide  
2 of claim 1.

1 7. An isolated nucleic acid encoding the polypeptide  
2 of claim 3.

1 8. An isolated nucleic acid encoding the polypeptide  
2 of claim 4.

1           9. An isolated nucleic acid comprising a strand that  
2 hybridizes under stringent conditions to a single stranded  
3 probe, the sequence of which consists of any one of SEQ ID  
4 NOs: 3, 59, 75, 78, 79, 80, 81, 85, 86, or 87, or the  
5 complement of any one of SEQ ID NOs: 3, 59, 75, 78, 79, 80,  
6 81, 85, 86, or 87.

1           10. The isolated nucleic acid of claim 9, wherein the  
2 nucleic acid encodes a polypeptide that contains a PDZ  
3 domain.

1           11. The nucleic acid of claim 10, wherein the amino  
2 acid sequence of the polypeptide comprises any one of SEQ  
3 ID NOs:1, 2, 82, 83, or 84.

1           12. The nucleic acid of claim 9, wherein the strand  
2 is at least 15 nucleotides in length.

1           13. The nucleic acid of claim 12, wherein the nucleic  
2 acid is an antisense nucleic acid that inhibits expression  
3 of a polypeptide comprising any one of SEQ ID NOs:1, 2, 82,  
4 83, or 84.

1           14. A vector comprising the nucleic acid of claim 6.

1           15. A vector comprising the nucleic acid of claim 7.

1           16. A vector comprising the nucleic acid of claim 8.

1           17. A vector comprising the nucleic acid of claim 9.

1           18. A vector comprising the nucleic acid of claim 10.

1 19. A cultured host cell comprising the nucleic acid  
2 of claim 6.

1 20. A cultured host cell comprising the nucleic acid  
2 of claim 7.

1 21. A cultured host cell comprising the nucleic acid  
2 of claim 8.

1 22. A cultured host cell comprising the nucleic acid  
2 of claim 9.

1 23. A cultured host cell comprising the nucleic acid  
2 of claim 10.

1 24. An antibody that specifically binds to the  
2 polypeptide of claim 1.

1 25. A method of producing a polypeptide, the method  
2 comprising isolating the polypeptide from the cultured host  
3 cell of claim 19.

1 26. A method of screening for a compound that  
2 specifically binds to a polypeptide, the method comprising  
3 contacting a test compound with the polypeptide of claim 1,  
4 and comparing the extent to which the test compound binds  
5 to the polypeptide with the extent to which a reference  
6 compound binds to the polypeptide, wherein a test compound  
7 binding to the polypeptide to a greater extent than the  
8 reference compound indicates that the test compound  
9 specifically binds to the polypeptide.

1 27. The method of claim 26, wherein the test compound  
2 is a test polypeptide.

1 28. The method of claim 27, further comprising  
2 identifying the gene that encodes the test polypeptide.

1 29. A compound that binds to the polypeptide of  
2 claim 1.

1 30. The compound of claim 29, wherein the compound is  
2 a polypeptide.

1 31. A gene encoding the compound of claim 30.

1 32. The nucleic acid of claim 12, wherein the nucleic  
2 acid is an antisense nucleic acid that inhibits expression  
3 of a polypeptide comprising any one of SEQ ID NOs:1, 2, 82,  
4 83, or 84.

1 33. A fusion protein comprising any one of SEQ ID  
2 NOs:1, 2, 82, 83, or 84 and another amino acid sequence.

1 34. The fusion protein of claim 33, wherein the other  
2 amino acid sequence is specifically bound by an antibody.

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